

## EXTERNAL PLASTIC STRUCTURE OF A TREADMILL

### BACKGROUND OF THE INVENTION

5        The present invention is related to an improved external plastic structure of a treadmill. The panel plastic member and the step board plastic member of the treadmill are made of plastic material by blowing molding, whereby internal buffering spaces are formed therein. Accordingly, a user is protected from getting hurt and the safety in use of  
10      the treadmill can be ensured and the internal buffering spaces can prevent the external plastic structure from being broken due to a crash or fabrication.

15      Fig. 7 shows a conventional treadmill having a base seat 6 and a running platform 7. The base seat 6 has two upward extending columns 61. A panel 62 is connected between top ends of the two columns 61 for controlling operation of the treadmill. A front section of the running platform 7 is pivotally disposed between the columns 61. A running belt 71 is circularly rotatably wound around the running platform 7. Two step  
20      boards 72 are respectively disposed on two sides of the running belt 71 of the running platform 7 for a user to step thereon and rest.

25      The panel 62 and step boards 72 are made of plastic material by injection molding. As shown in Figs. 8 and 9, the panel 62 and step boards 72 are both solid so that the panel 62 and the step boards 72 both have very hard surfaces. When a user runs on the treadmill, in case the user incautiously falls down, the user may hit the panel 62 and get hurt or

damage the panel 62. The step boards 72 are arranged on two sides of the running belt 71 for the user to temporarily rest thereon. However, the user may incautiously kick the hard surfaces of the step boards 72 and get hurt. Especially when a rehabilitated patient walks on the running belt 71 with bare feet, the patient's feet often incautiously kick the step boards 72 and get hurt.

Furthermore, the panel 62 and the step boards 72 are solid and easily become brittle due to an oxidation. Consequently, the external 10 plastic structure may be broken due to an improper force, such as assembling bolt (8). With reference to Fig. 10, the panel 62 and the step boards 72 may be broken during screwing bolts or a crash when being transported.

15 Therefore, it is tried by the applicant to ensure safety in use of the treadmill and prevent the external plastic structure of the treadmill from being broken due to a crash or an improper force.

## SUMMARY OF THE INVENTION

20 It is therefore a primary object of the present invention to provide an improved external plastic structure of a treadmill including a base seat and a running platform. The base seat has two columns respectively upward extending from two sides of the base seat. A panel plastic member is disposed between the two columns. A front section of the running platform is mounted between the columns. A running belt is circularly rotatably disposed in the running platform. A step board plastic

member is disposed on two sides of the running belt of the running platform. The panel plastic member and the step board plastic member are made of plastic material by blowing molding, whereby internal buffering spaces are formed therein. In case a user incautiously falls 5 down to hit the panel plastic member or the step board plastic member, the surfaces of the panel plastic member and the step board plastic member will be inward recessed due to the buffering spaces to buffer the impact. Accordingly, the user is protected from getting hurt and the safety in use of the treadmill can be ensured.

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It is a further object of the present invention to provide the above improved external plastic structure of the treadmill in which multiple reinforcing ribs are longitudinally formed between the top board and bottom board of the step board plastic member for supporting the top 15 board and increasing the strength thereof when stepped.

The present invention can be best understood through the following description and accompanying drawings wherein:

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#### BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective assembled view of the present invention;  
Fig. 2 is a perspective exploded view of the present invention;  
Fig. 3 is a sectional view of the panel plastic member of the present 25 invention;

Fig. 4 is a sectional view of the step board plastic member of the present invention;

Fig. 5 is partially cross-sectional view for showing the bolt screwed into the present invention;

Fig. 6 is a side sectional view of the step board plastic member of the present invention, showing that the reinforcing ribs support the top 5 board of the step board plastic member;

Fig. 7 is a perspective view of a conventional treadmill;

Fig. 8 is a sectional view of the panel of the conventional treadmill;

Fig. 9 is a sectional view of the step board of the conventional treadmill; and

10 Fig. 10 is partially cross-sectional view of a conventional treadmill for showing the broken external plastic structure during to the bolts.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

15 Please refer to Figs. 1 to 4. The treadmill of the present invention includes a base seat 1 and a running platform 2. The base seat 1 has two columns 11 respectively upward extending from two sides of the base seat 1. A panel plastic member 3 is connected between the two columns 11 for controlling operation of the treadmill. A front section of the 20 running platform 2 is mounted between the columns 11. A running belt 21 is disposed in the running platform 2. The running belt 21 is driven by a power unit 22 to circularly rotate. A step board plastic member 4 is disposed on two sides of the running belt 21 of the running platform 2 for a user to step thereon and rest.

25 The panel plastic member 3 has a cover board 31 and a base board 32 fixed on the bottom of the cover board 31. The cover board 31 and the

base board 32 define therebetween a receiving space for accommodating a unit for controlling the treadmill. The top face of the cover board 31 has an upper panel face 311, while the bottom face thereof has a lower panel face 312. The upper panel face 311 and the lower panel face 312 define

5 therebetween a buffering space 313 for absorbing impact force. The top face of the base board 32 has an upper panel face 321, while the bottom face thereof has a lower panel face 322. The upper panel face 321 and the lower panel face 322 define therebetween a buffering space 323 for absorbing impact force. The upper panel face 321 of the base board 32 is

10 fixed under the lower panel face 312 of the cover board 31. The cover board 31 and the base board 32 are made of plastic material by blowing molding, whereby the buffering spaces 313, 323 are formed between the upper and lower panel faces 311, 321, 312, 322 of the cover board 31 and base board 32.

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The top face of the step board plastic member 4 has a top board 41 for a user to step thereon. The top board 41 is formed with multiple slip proof channels 411 parallel to the moving direction of the running belt 21. The bottom face of the step board plastic member 4 has a bottom board

20 42 fixedly inserted in two sides of the running platform 2. The bottom board 42 and the top board 41 define therebetween a buffering space 43 for absorbing impact force. The bottom board 42 is formed with an insertion section 421 recessed toward the top board 411 for being fixedly inserted in two sides of the running platform 2. In addition, the bottom board 42 is longitudinally formed with multiple reinforcing ribs 422 recessed toward the top board 41 on one side of the insertion section 421 for increasing the strength of the top board 41 when stepped. A side

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board 44 downward extends from on one side of the step board plastic member 4 for abutting against outer side of the running platform 2. The step board plastic member 4 is made of plastic material by blowing molding, whereby the buffering space 43 is formed between the top board 41 and the bottom board 42. The insertion section 421 and the reinforcing ribs 422 are all integrally formed in blowing molding.

According to the above arrangement, the panel plastic member 3 and the step board plastic member 4 are formed with internal buffering spaces 313, 323, 43. Therefore, in case a user incautiously falls down to hit the panel plastic member 3 or the step board plastic member 4, the surfaces of the panel plastic member 3 and the step board plastic member 4 will be inward recessed due to the buffering spaces 311, 321, 43 to buffer the impact. Accordingly, the user is protected from getting hurt and the safety in use of the treadmill can be ensured.

With reference to Fig. 5, the buffering spaces 311, 321, 43 of the panel plastic member 3 and the step board plastic member 4 can absorb the transfiguring rate of the panel plastic member 3 and the step board plastic member 4 when screwing the bolt 5 to hold of the panel plastic member 3 and the step board plastic member 4 in place or a sudden crash.

Furthermore, as shown in Fig. 6, the reinforcing ribs 422 between the top board 41 and bottom board 42 of the step board plastic member 4 serve to support the top board 41 and increase the strength thereof when stepped.

The above embodiments are only used to illustrate the present invention, not intended to limit the scope thereof. Many modifications of the above embodiments can be made without departing from the spirit of  
5 the present invention.